

The Basics

The very *presence* of mold spores is normal in the environment. However, the presence of mold *growth* indoors is not normal and may pose health and/or comfort risks to exposed occupants. Mold growth requires spores ("seeds"), favorable temperatures, a food supply, and moisture. Like plants, mold grows by spreading, and the release of spores. Mold easily spreads outward under favorable conditions. However, if conditions are unfavorable for growth, mold will become dormant and release spores into the air so that they can find a suitable environment for survival.

Moisture, nutrients, and favorable temperatures can lead to mold growth in water-damaged materials in 24 to 48 hours. Affected materials should be dried promptly to prevent germination and subsequent mold growth. Nutrients include dust, dirt, soiled surfaces, and organic building materials (e.g., wood, latex paint, drywall, and carpet). Ideal temperatures for mold growth range from 40° F to 100° F. This growth can result from inadequate design, installation, operation, and/or maintenance of the site, building envelope, HV AC system, and/or building. In fact, we can only really control moisture.

Causes of Interior Mold Growth

Building defects leading to moisture intrusion include non-continuous vapor retarder installation; substandard flashing, roofing, waterproofing, or window installation; poor wall waterproofing; storage and handling of construction materials that contributes to their exposure to rain; the presence of construction debris; and the formation of ice dams. These defects cause moisture inside the structure which then contributes to mold growth.

A number of potentially responsible parties may be involved in building defect claims involving mold. For example, construction managers, project architects, mechanical engineers, and subcontractors may be responsible for improper design or maintenance of buildings and heating, ventilation, and air-conditioning systems; specifying improper materials or methods; and poor workmanship. Product manufacturers may be responsible for the design and operation of equipment or building materials. Landlords and property management companies may be responsible for failing to properly maintain the building or its systems, allowing tenant actions that lead to mold growth, or failing to disclose facts relating to water events that caused mold growth. Tenants who fail to maintain their HV AC systems properly, or engage in activities that foster mold growth are also potential parties. Water extraction ("remediation") companies may not completely remove all moisture or mold, resulting in additional growth and contamination. Property inspection companies may fail to discover mold propagating conditions.

Be prepared for mold cases! Ask the right questions, and use the right experts. Robson Forensic's industrial hygienists and engineers can assist you with the technical aspects of your mold and indoor environmental quality cases.

- **Ask: Do you know the source of the moisture that caused the condition?**

Our engineers are skilled at investigating building construction issues and HV AC system design/operation to seek the source of unwanted moisture. Some likely sources include water heater failures, uninsulated condensate lines, clogged sewer lines, ice dams, damp lumber in new construction, poor containment during repairs, and poor drainage.

- **Ask: Is the mold noticeable in only one location?**

Our team has the experience and knowledge to accurately and completely identify the scope of mold infiltration. Except for obvious moisture stains, molds are often hidden behind walls, baseboards, in carpets, above suspended ceilings, and in attics. Chemical agents may come from the outside environment, furnishings, office equipment, building materials, plants, or cleaning chemicals. Our industrial hygienists can determine the chemical or mold species that are present, how much is present, and the extent of contamination. We know *where* to test, *how* to test, and *how many* samples are needed to properly identify and characterize contaminants. Robson Forensic is skilled in testing using bulk samples, swabs, tape, spore traps, viable microbial particle sampling, and wall cavity testing. We only use AIHA EMLAP *accredited laboratories*. We also interpret the data for you.

- **Ask: Was a contractor hired to correct the condition?**

Frequently, property owners are frustrated by one or more attempts by remediation contractors to correct the condition. We regularly evaluate materials and methods, suggest conceptual approaches to remediation, and determine how to safely remove or manage the contaminated materials.

- **Ask: Who determined that the condition had been corrected? Were you told it was safe to reenter/occupy the structure?**

Our industrial hygienists perform testing to determine whether the mold was properly removed to prevent further exposure, especially to occupants with pre-existing health issues or compromised immune systems.

Knowing the conditions that cause mold and indoor air quality problems, knowing how to correct them and how to assure that the corrections are complete requires a multi-disciplinary approach. Robson Forensic's experts are an integrated team that coordinate investigations, analyze the data, and generate reports.